CLAIMS

20

- 1. A method for monitoring a polynucleotide amplification reaction comprising the steps of:
- (i) carrying out a reaction for the amplification of a target 5 polynucleotide;
 - (ii) either during or after the amplification reaction contacting the amplified product with a molecule that binds to or interacts with a polynucleotide; and
- (iii) detecting the interaction between the amplified product and the
 10 molecule by measuring changes in applied radiation,
 wherein the molecule is immobilised to a support material.
 - 2. A method according to claim 1, wherein the molecule is a polymerase enzyme.
- 3. A method according to claim 1, wherein the molecule is a polynucleotide
 of complementary sequence to that of the amplified product.
 - 4. A method according to claim 3, wherein the molecule acts as a primer for the amplification reaction.
 - 5. A method according to any preceding claim, wherein detection in step (iii) is carried out by applying surface electromagnetic waves and monitoring changes in the waves.
 - 6. A method according to claim 5, wherein detection is carried out by measuring changes in surface plasmon resonance.